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# Digital Transformation:

A Business User's Survival Guide

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# Introduction

Long before the pandemic hit and forever changed the way we live and work, digital transformation was a forward-looking strategic initiative for executives across numerous industries. Now, with the pace of digital change surging at an exponential rate, **it's a non-negotiable imperative.**

In this guide, we'll highlight digital transformation strategies and tools, share executive insights on challenges and priorities, and help you map out the best route to achieve your digital transformation goals.

# Mapping the **Journey** 01





## Mapping the Journey

COVID-19 catapulted us into the future, accelerating the adoption of technologies and shortening the implementation runway, from months and years to days and weeks.

Digital transformation now dominates annual reports, industry conferences, and corporate strategies, often with its own growing budget and hiring plan.

<sup>1</sup> According to IDC

<sup>2</sup> According to Rimini Street

# \$6.8T

**in DX investments between 2022-24<sup>1</sup>**

Global spending on the digital transformation (DX) of business practices, products and organizations is forecasted to reach \$6.8 trillion by 2024 (according to IDC), with annual budgets more than doubling the amount allocated in 2020.

# 80%

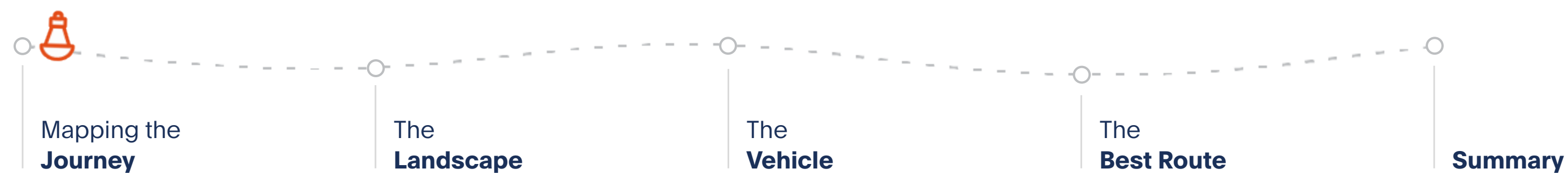
**of CFOs place DX in the top five of their priorities<sup>2</sup>**

What was once deemed mere marketing buzzword, has transformed into a vital journey upon which all companies, large and small, must embark if they intend to survive and thrive.

# What is **Digital Transformation?**

The term digital transformation was coined in 2011 by the MIT Center for Digital Business and described as the adoption of technology to radically improve the performance or reach of enterprises. At the time, this focused on the implementation or inclusion of analytics, social media, and smart devices to improve customer relationships, internal processes, and value propositions. Back then, digital transformation truly was a journey with a definitive starting point, and a distinct destination—a coveted state of digital maturity.

In the years since, numerous analysts and experts have weighed in, recycling definitions that differentiate digitization and digitalization, and crown digital transformation as the fourth industrial revolution—the key to becoming a future-proof organization.



## According to **Gartner**

### **Digitization**

Digitization is the process of changing from analog to digital form, also known as digital enablement. Said another way, digitization takes an analog process and changes it to a digital form without any different-in-kind changes to the process itself.<sup>3</sup>

### **Digitalization**

Digitalization is the use of digital technologies to change a business model and provide new revenue and value-producing opportunities; it is the process of moving to a digital business.<sup>4</sup>

### **Digital Transformation**

Digital transformation can refer to anything from IT modernization (for example, cloud computing), to digital optimization, to the invention of new digital business models. The term is widely used in public-sector organizations to refer to modest initiatives such as putting services online or legacy modernization. Thus, the term is more like “digitization” than “digital business transformation.”<sup>5</sup>

<sup>3</sup> Gartner IT Glossary

<sup>4</sup> Gartner IT Glossary

<sup>5</sup> Gartner IT Glossary



# Becoming **Future-Proof**

As many have learned over the past few years, however, becoming future-proof requires organization-wide transformation wherein one's product/service, technology, operations, business model, and company culture are collectively reshaped to withstand everything from the probable to the unimaginable.

The old definitions of digital transformation no longer suffice. Business leaders need to think about DX differently if they have any chance of successfully implementing it.

Digital transformation is a journey and the destination is a moving target, so everyone—from leadership and

IT, to marketing, sales, customer service and HR—must get on board for the ride.

Since the term emerged in 2011, the definition of digital transformation has morphed and stretched to mean so much more than the transition of outdated systems and third-party digital solutions to make systems run more efficiently.

Digital transformation is no longer just about technology or disruption. It's about supporting people through the strategic use of tools and data to achieve greater business outcomes.

## **DX is a mindset.**

A lens through which leadership must examine the various people, processes, and technologies at work across the entire organization to create connected, data-driven experiences for customers and employees, alike.



# Digital Transformation Drivers

## Objectives, Owners, Outcomes

Everyone agrees that digital transformation is a priority. In fact, 92% percent of organizations report that they are already somewhere along the DX journey<sup>6</sup>. But not everyone agrees on who should champion DX and why.

In this section, we'll discuss the objectives of digital transformation, who should lead DX initiatives, and what the potential outcomes are.

<sup>6</sup>According to a recent survey conducted by PTC

## Efficiency

- Workforce productivity
- Cost management

## Growth

- Time-to-market
- Revenue
- Market share

## Experience

- Product/service quality
- Customer experience
- Employee experience

# Objectives

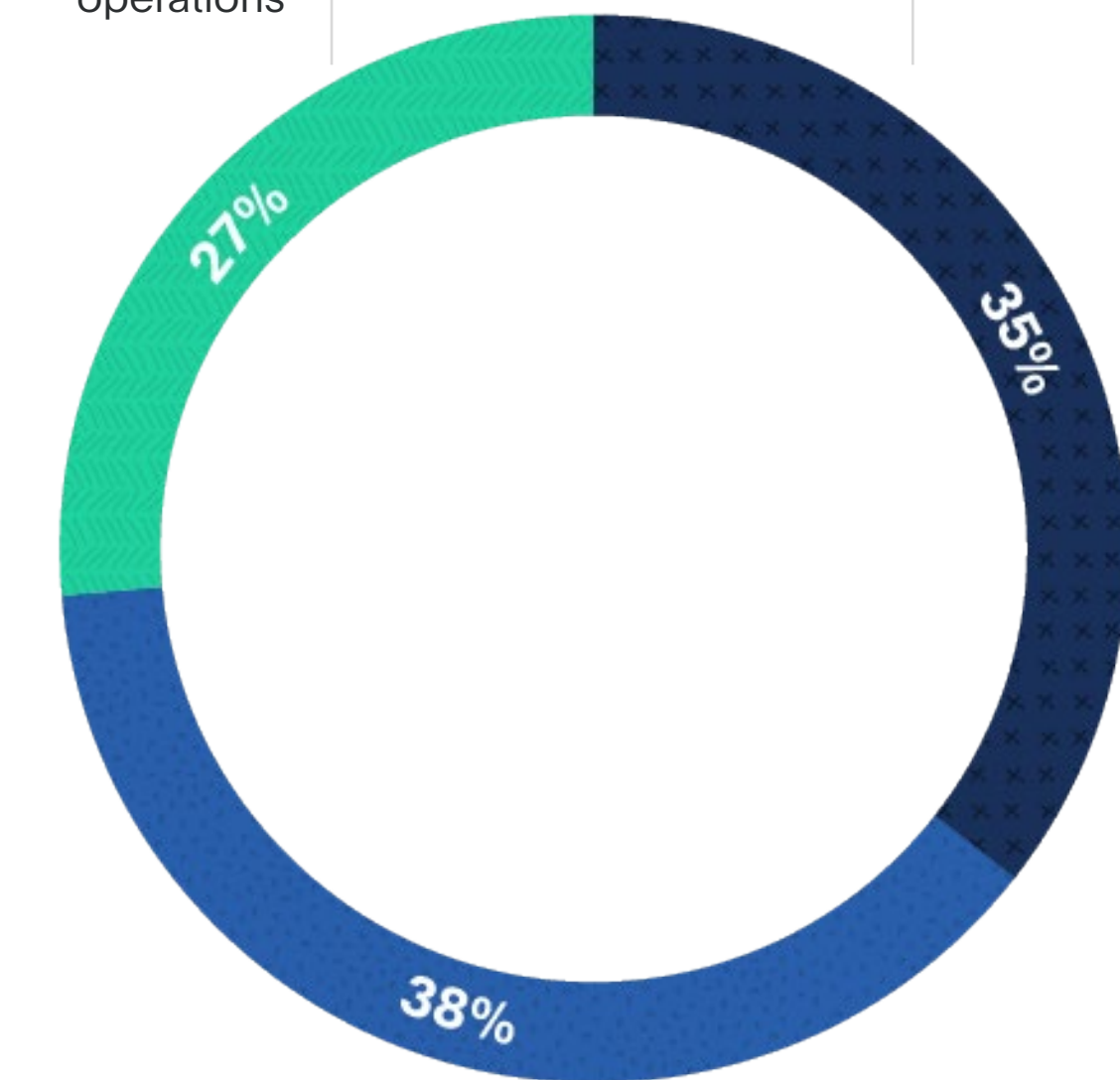
Pre-pandemic motivations such as the desire for agility and scalability have been eclipsed by essential business drivers like continuity and competitiveness.

In a 2021 survey of one hundred executives in the Banking, Financial Services, and Insurance industries, 38% of respondents said that getting ahead of competition was their primary motivation for automating company data operations, while 35% cited the need to maintain business continuity.

But business continuity and competitive edge are dependent upon several other key metrics, all of which revolve around three specific areas that drive successful DX strategies.

To achieve total automation of data operations

To maintain business continuity



To get ahead of the competition

2021 DX Survey commissioned by DeepSee, conducted by the Tarrance Group



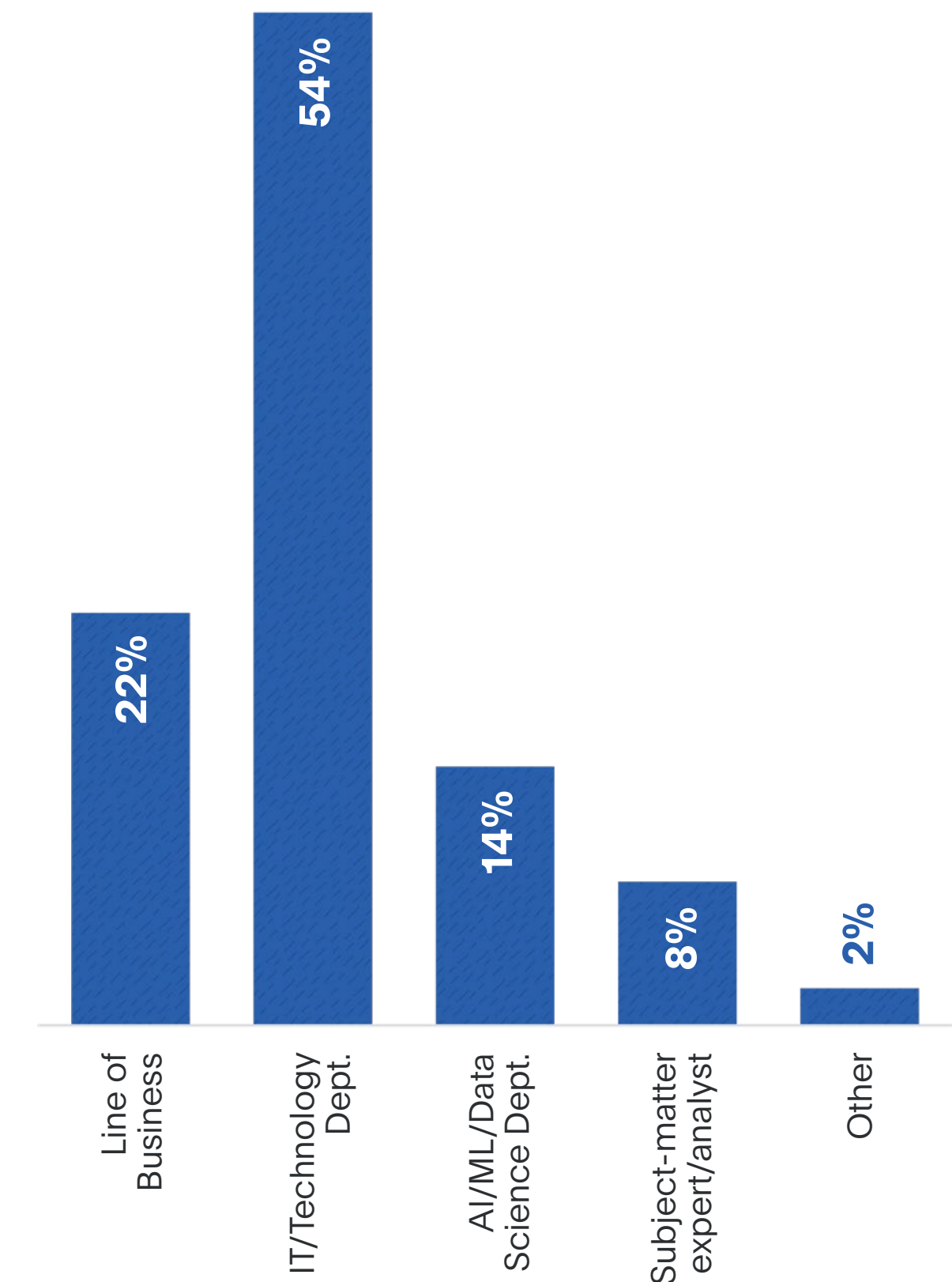


# Owners

From IT uplift to the digitization of operations, digital marketing initiatives and the consideration of new ventures in the digital-first economy, one thing is clear—digital transformation impacts every facet of an organization.

So, who owns DX strategy and the multi-million-dollar budget that often comes with it? Is it the CEO, CIO, CTO, or someone else?

Because IT uplift is often the first step on the DX journey, many CTOs and CIOs are often charged first and foremost with the responsibility. But the exponential pace of digital change requires outside help.



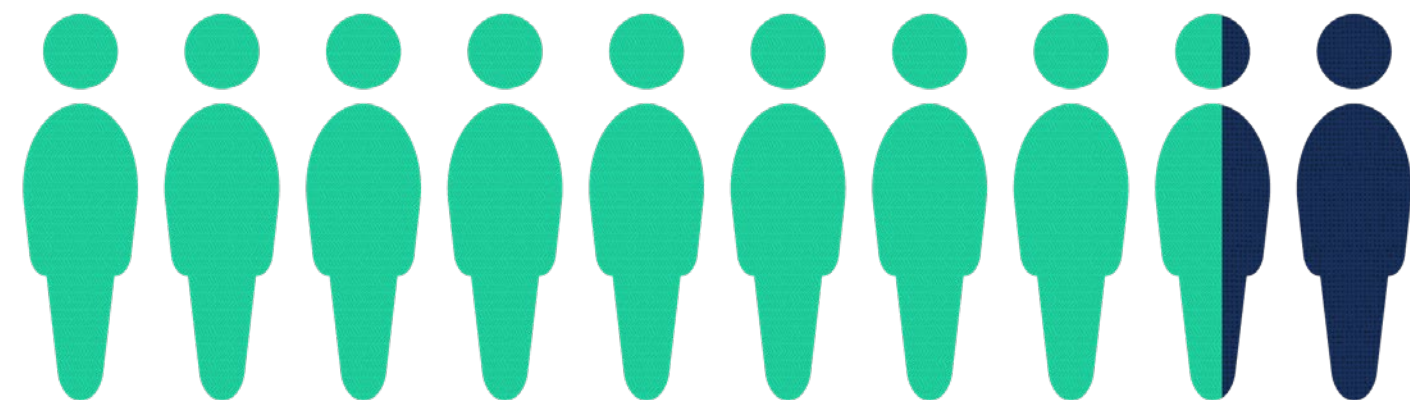
2021 DX Survey commissioned by DeepSee, conducted by the Tarrance Group



# Rise of the Citizen Developer

While IT can and should handle the large-scale transformation efforts surrounding technology investments and improvements to legacy systems, effective digital transformations are impossible without those closest to the business optimizing their

own processes. The emergence of no-code and low-code solutions have made it possible, empowering citizen developers to transform their teams and work in days and weeks, rather than submitting requests that sit idle for months in IT's backlog.

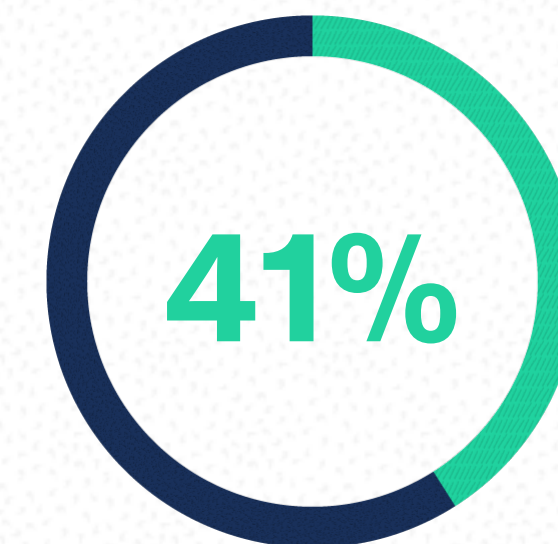


**86% of IT decision makers** cite a lack of developers as their biggest DX challenge.<sup>7</sup>



## What is a Citizen Developer?

A citizen developer is the persona of a non-IT employee who creates application capabilities for themselves or others, using tools that are not actively forbidden by IT or business units.<sup>8</sup>



of non-IT employees build or customize their own solutions — and by 2023 these “citizen developers” will outnumber professional developers four-to-one in large enterprises.<sup>9</sup>

<sup>7</sup>According to Project Management Institute

<sup>8</sup>Gartner IT Glossary

<sup>9</sup>Source: Gartner

# Ownership

While it's tempting to assume that digital transformation falls solely upon IT's shoulders, technical and nontechnical leaders and users across the organization **MUST** champion DX initiatives to meet company goals. Buy-in and collaboration are key.



**CEO**

Leading the cultural shift



**CIO/CTO**

Leading IT uplift



**Citizen Developers**

Improving processes



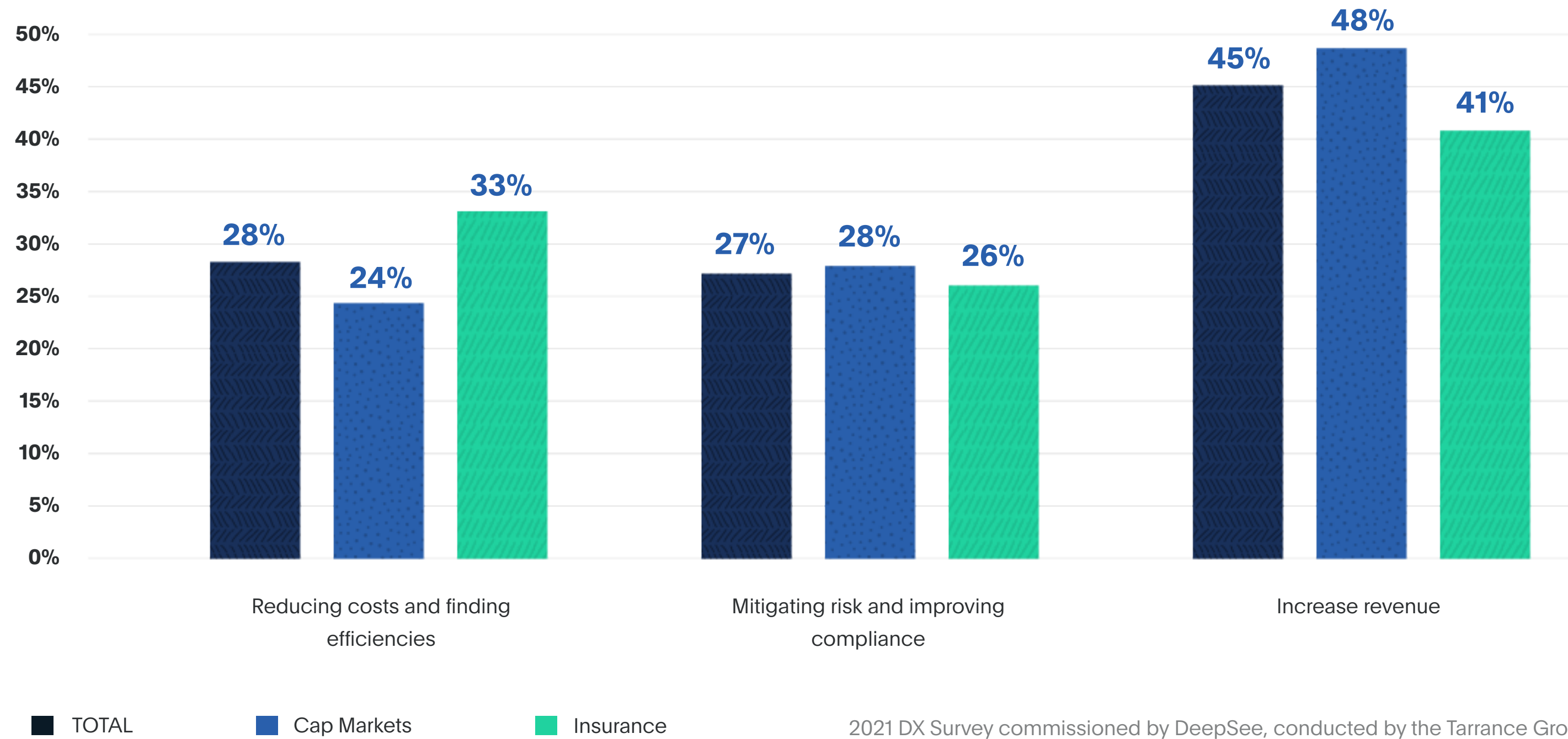
**Employees and Customers**

Experiencing the benefits

# Outcomes

Successful digital transformations create a myriad of compounding benefits across the organization. DeepSee's 2021 survey of executives in the Banking,

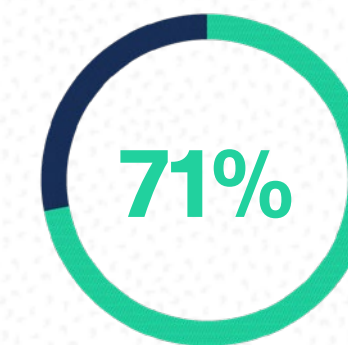
Financial Services and Insurance space demonstrates that the desired outcome among most leaders is increased revenues.



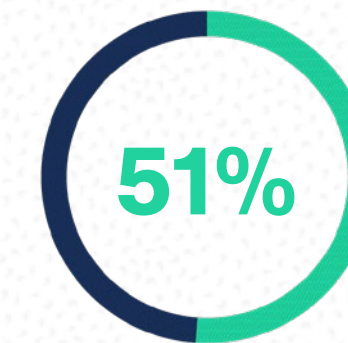
## Revenue is king

Increasing revenue was the primary driver for the majority of respondents. 55% stated their top goals were to get ahead of the competition and to maintain business continuity.

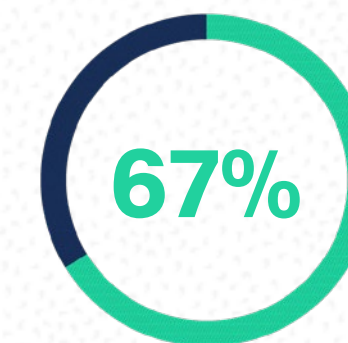
## Among leaders:<sup>10</sup>



are seeing increased revenue as a result of digital investments.



are seeing increased profits.



expect digitization efforts to boost profitability within the next two years.

<sup>10</sup>According to a 2022 digital transformation survey conducted by Broadridge

# The Landscape 02





## Areas of Digital Transformation

When thinking through the DX journey, it is crucial that leadership consider three key areas for transformation: **people, process, and technology**.

The first, people, isn't as obvious as process and technology, which were the top digital transformation investment priorities in 2021<sup>11</sup>.



While process changes and technological investments like collaboration platforms and automation solutions can be big wins for organizations, it is vitally important that **people** are considered first.

**Technology** should make **processes** more efficient for **people**.

<sup>11</sup>Source: Salesforce + Pulse survey

# People

The origins of customer experience (CX) can be traced back to the 1960s, but CX didn't really take precedence over product until the 1990s. Now, it's not only a given, but a primary driver of the digital-first economy.

In a competitive market, consumers are empowered to demand positive experiences throughout the customer life cycle. Whether they're researching, shopping, purchasing, unboxing, installing, using or returning, it's assumed that the customer experience will not only be easy, but enjoyable.

Optimal customer experiences come from connected experiences. But creating a seamless experience requires companies to consistently prioritize the customer throughout the entire customer life cycle.

Digital transformation solutions that improve how companies collect and process customer data, and then seamlessly apply those learnings to products, systems, and processes, have the power to transform challenges into opportunities for greater growth and retention.





## However, customers aren't the only people to consider.

In 2022, amidst the Great Resignation and on the heels of the largest work-from-home experiment we've ever encountered, another crucial motivating force for digital transformation moved front and center: employee experience (EX).

It's just as important for employees to have a positive experience, as it is customers. After all, it's employees who build products and provide services for the customer.

Mundane and manual work, inefficient processes, and superfluous and unintuitive tools result in excessive time wasted and employee frustration, which can have disastrous effects on customer experience and the organization's bottom line.

To prevent this, organizations need to analyze and understand their most time-intensive and business critical processes.

### What is **EX**?

EX is the sum total of an employee's experiences at a company. It is comprised of company culture, the workspace and general environment, interactions with coworkers, including leaders and HR, and user experiences with workplace technology.



# Process

To reap the greatest rewards of digital transformation—operational efficiencies, cost savings, risk mitigation, and increased revenue—leaders must work with stakeholders to develop extensive business process knowledge before they consider solutions.

## Understanding Process Complexity

### Simple Workflows

Simple workflows are characterized by their shorter time span, low variation, low rules/decision complexity, low task management, and low number of sub-processes.

## Four types of business processes

### Administrative-driven

- Numeric-based
- Rule-driven
- Linear workflow

### Transaction-driven

- Numeric-based
- Transaction-driven
- Linear workflow

### Knowledge-driven

- Language-based
- Decision-driven
- Non-linear workflow

### Judgment-driven

- Language-based
- Experience-driven
- Non-linear workflow

Only after leadership understands the people and processes they aim to support and streamline, should they begin to evaluate digital transformation solutions.

Exceptions are rare and though mundane, processes are very much machine-centric and highly repeatable.

### Case Management

Case management is characterized by longer-running workflows, with a high number of sub-processes. Such processes cut across organizational boundaries, are highly variable, are often document- or content-driven, and have high degrees of task and decision complexity. Exceptions are the norm and processes are very much human-centric with complex interactions among content, people, and applications.

**Mapping desired outcomes to processes** will help leaders prioritize their DX initiatives.

## Questions to Ask:

What are the most time-intensive processes?

Which processes carry the greatest risk?

Which processes have the greatest impact on people—both customers and employees?

# Technology

A successful digital transformation involves the application and integration of several key technologies:

Cloud technology

Artificial intelligence

Process automation

Internet of things

Blockchain

It's worth noting that while cloud technology is a key component of digital transformation on its own, it's also an important consideration for business users assessing other DX investments. Cloud deployed platforms provide scalability, agility, resiliency, and extensibility in a protected environment with advanced security standards, redundancy, anti-virus tools and data recovery capabilities.

Though each of these DX enablers are vitally important to the digital transformation journey, we are going to focus on the intersection of two key areas for business users: artificial intelligence (AI) and process automation.

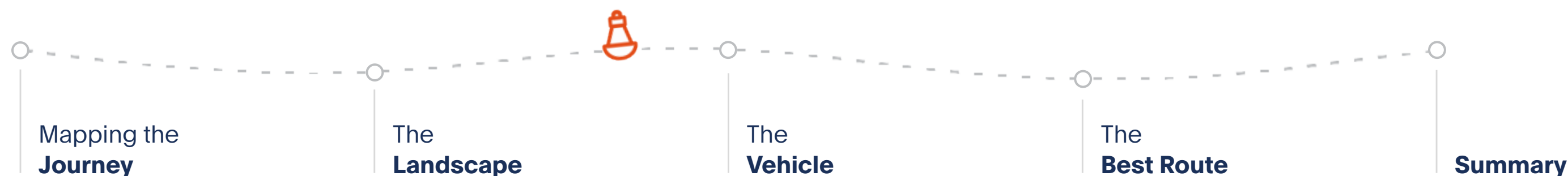
## Definitions:

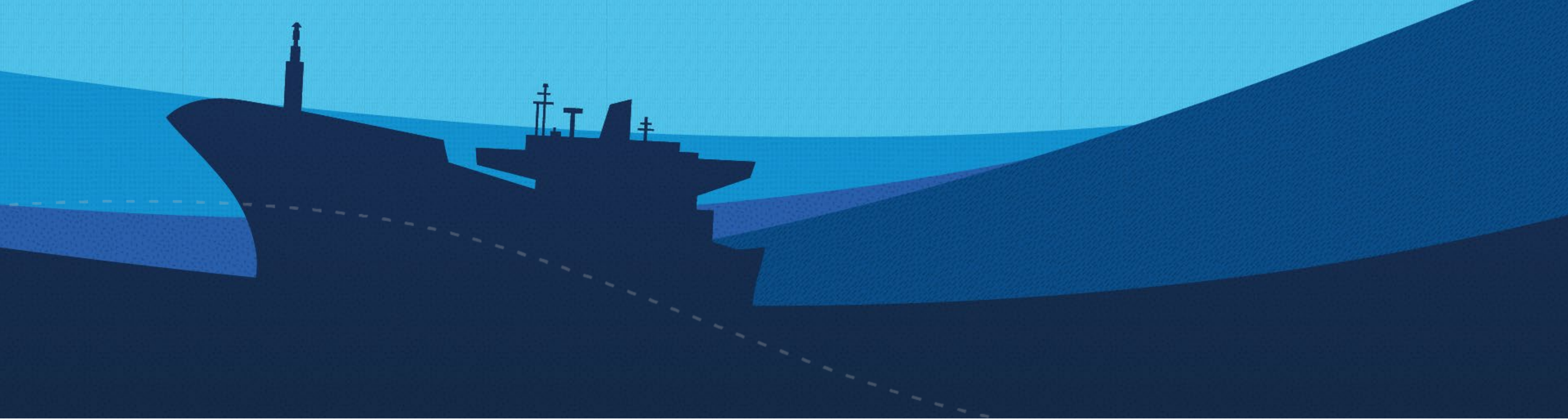
### Artificial Intelligence

The theory and development of computer systems able to perform tasks that normally require human intelligence, such as visual perception, speech recognition, decision-making, and translation between languages.

### Process Automation

Process automation uses technology to automate business processes. It typically has three functions: automating processes, centralizing information, and reducing the input required by people.





# Using **AI-powered automation** to drive DX

There is no shortage of technologies and toolkits that address process automation. Many have heard of Robotic Process Automation, but RPA represents a single category of automation technology, among an array of options.

As the demands of the digital economy have grown, many solution providers have begun to address a

broader set of tasks and workflows by supercharging their offerings with artificial intelligence (AI). These advancements have not only improved existing technologies but created new categories for consideration within process automation.

Process automation is no longer merely a matter of task elimination. Digital leaders know that automation

solutions must eliminate simple tasks and augment knowledge workers in more complex tasks and workflows.

| Automate tasks + Augment teams =  
**Transformation**



# The **Vehicle** 03

In this next section we'll uncover the strengths and weaknesses of three types of automation technologies, as well as the key characteristics that decisionmakers need to consider ahead of implementation.

# Intelligent Document Processing

## What is IDP?

Intelligent document processing (IDP) platforms combine several AI technologies including optical character recognition (OCR), machine learning (ML), and natural language processing (NLP) to digitize and classify documents, and extract data for additional processing in downstream systems of record (e.g. ERP, CRM).

## What is IDP used for?

IDP has evolved beyond a digitization solution to help automate transaction-driven processes by automating high-volume, previously manual document processing efforts.

Common use cases include invoice processing, receipt processing and order processing. Vertical-specific uses include trade confirmations, medical records, ID cards, utility bills and logistics documents such as bills of lading and delivery notes.

More complex case management processes, such as onboarding, claims, incident management, and investigative processes utilize the same set of functionalities, but often need extended features to treat various document and content types (e.g. photos, videos) as part of a “case” file with supporting case-level validation features.



## Strengths

- ✓ Processing machine-generated documents (i.e. bills, statements, ID cards)
- ✓ Automating data entry
- ✓ Handling high volume
- ✓ Driving straight through processing (STP)

## Weaknesses

- ✗ Processing human-generated documents (i.e. contracts, research papers, communications)
- ✗ Aiding complex data analysis
- ✗ Reading dense data and understanding context
- ✗ Performing real-time information monitoring

# Robotic Process Automation

## What is RPA?

Robotic Process Automation (RPA) is a type of automation software that can be programmed to complete basic, repetitive tasks, such as launching and operating other applications.

Since legacy software systems were not built with data interoperability in mind, as per today's modern application programming interface (API) standard, the only way to access data was via "over the top" access, at the UI level, with the development of a custom script—what's now known as a "bot."

## What is RPA used for?

Organizations commonly use RPA to transfer information from one system to the next, by copying data at the user interface (UI) level and pasting it to another target application.

Such tasks are typically found in back-office clerical processes and tend to be simple and highly repetitive in nature, requiring little, if any, analysis or subjective judgment.

Modern RPA systems may extend primary data transfer/data entry capabilities into workflow-driven processes, by not only copying data from multiple input sources and pasting them into a singular record (e.g. an excel spreadsheet), but also running a report based on the aggregated data, and emailing that report to a designated person or organization.

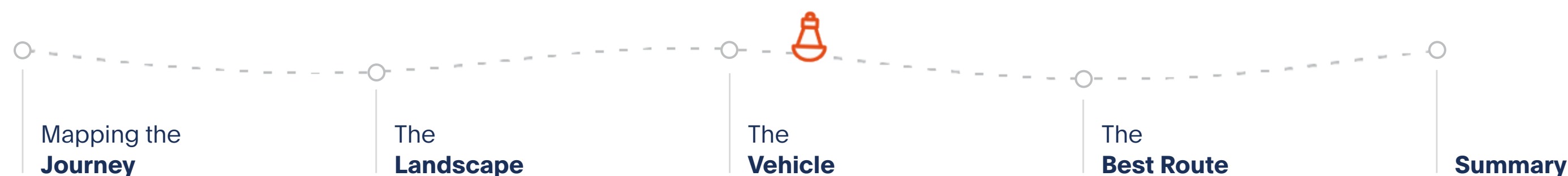
Common use cases include repetitive, large-scale data entry processes involving websites or legacy software systems, such as copy and paste, data aggregation, data migration and form filling tasks.

## Strengths

- ✓ Enables data access to websites and legacy software
- ✓ Provides connectivity outside of an API
- ✓ Singular and repetitive task execution
- ✓ Alleviates administrative workers with high-volume, manual task automation

## Weaknesses

- ✗ Handling complex, people-centric tasks
- ✗ Brittle, UI-based automation
- ✗ Workflow execution involving multiple processes, people, and systems
- ✗ Difficult to implement, maintain and use



# Business Process Automation

## What is BPA?

Business process automation platforms have largely superseded former business process management (BPM) tools, with an increased focus around automation, easier connectivity between systems, and simplified set-up and deployment.

Historically, BPM tools were complex to model and deliver, and traditionally built for IT teams to execute, with implementations lasting many months per use case.

Though the objective of the system remains the same—to model, orchestrate and execute end-to-end business processes—the toolset has broadened in capability, and is easier to deliver—signaling an evolved category name.

## What is BPA used for?

BPA draws upon multiple automation capabilities such as process modeling, collaboration and task management, intelligent document processing, decision automation, and application-specific integrations to execute simple workflows and complex longer-running processes, or case management.

There are three work patterns that are highly applicable to a case management approach, including:

1. Investigative management (anti-money laundering, fraud investigations, underwriting, claims management, legal matter management)
2. Service request management (customer onboarding, employee onboarding, vendor onboarding)
3. Incident management (customer service ticketing, IT help desk, HR incidents, quality control)

## Strengths

- ✓ Orchestration allows multiple tasks to be chained together
- ✓ Supports complex, long-running processes
- ✓ Delivers modern API-led connectivity

## Weaknesses

- ✗ Platforms are low-code, not no-code
- ✗ Lacks specific functionality to cover extended set of processes

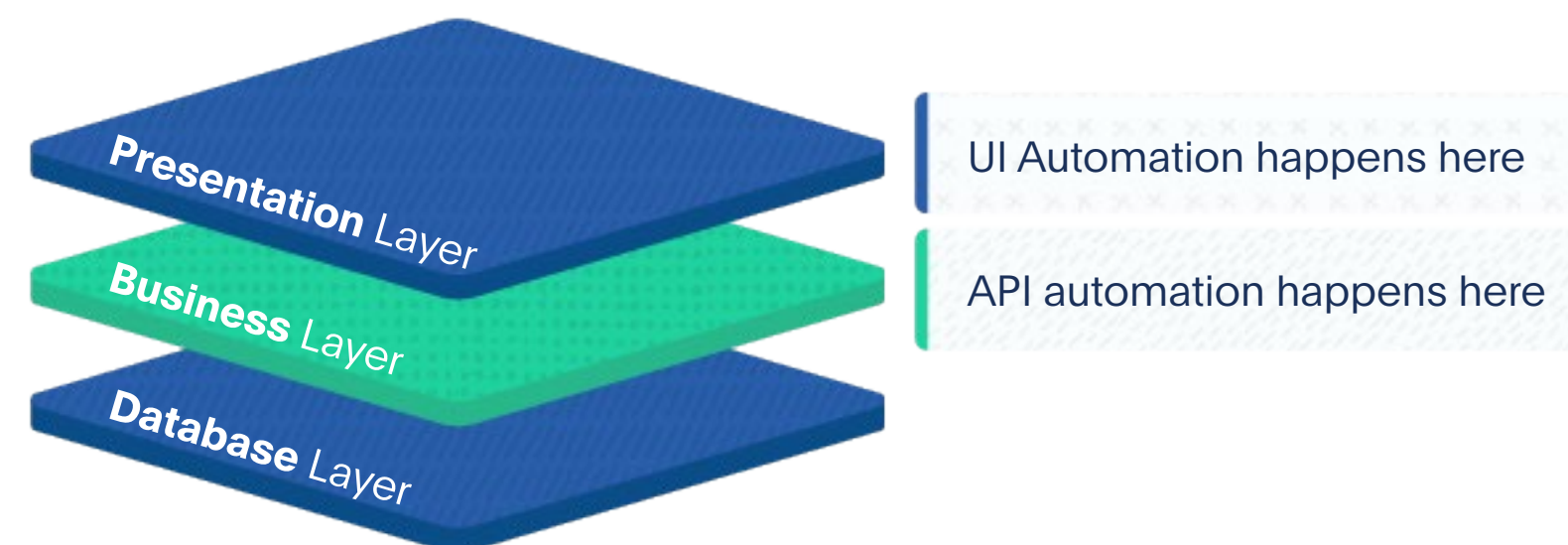


# Key Considerations

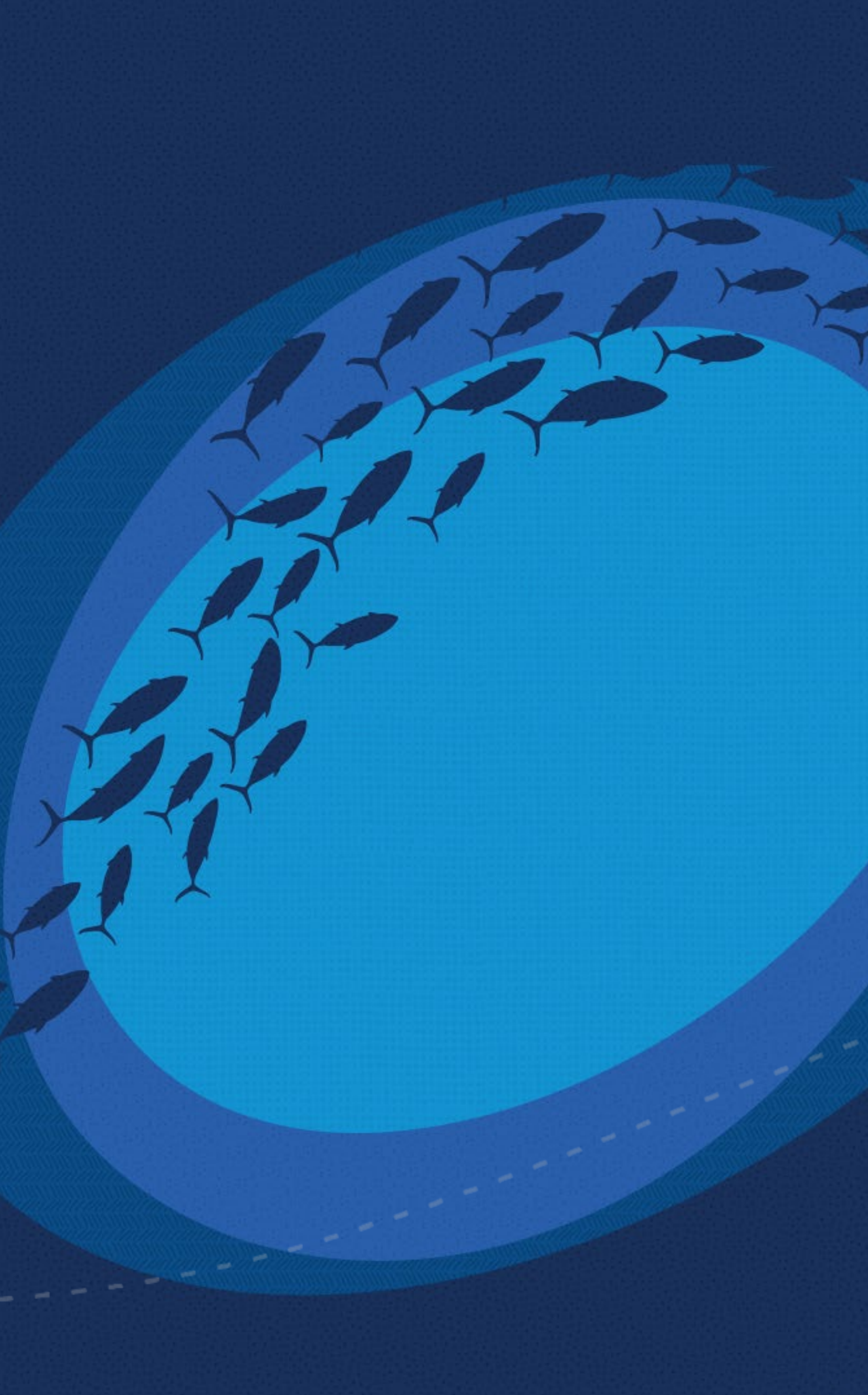
When evaluating automation solutions, decisionmakers often consider the following:

- ✓ Business process coverage
- ✓ Ease (or difficulty) of implementation
- ✓ Costs (licensing, onboarding, maintenance)
- ✓ Security and compliance
- ✓ No-code or low-code

But there's another important technical consideration that impacts the forward-looking flexibility and long-term success of process automation. That is, on which layer the automation occurs.







# A Foundational Difference

## API automation vs. UI automation

### UI-first Automation

- Built to solve connectivity problems
- Runs on top of existing legacy applications
- Scrapes UI data from App1 and transfers it to App2 to support existing workflows
- Automation for mimicking simple keystroke tasks
- Useful for workarounds, quick fixes and connectivity issues

✗ **Lengthy development, limited coverage, fragility**

Technology that **maintains the status quo**



**Old Technology: Bots and Macros**

### API-first Automation

- Built to modernize software design
- Creates new application, removes legacy problems
- Doesn't just connect data, but provides a core foundation to build new workflows
- Automation for tackling more complex end-to-end processes
- Useful for digital innovation and transformation projects and programs

✓ **Easy implementation, broader process coverage, greater resiliency and extensibility**

Technology that **transforms a process**



**New Paradigm: APIs and Microservices**



# The Best Route

# The Best Route

**Less than 30% of digital transformation journeys are success stories according to BCG<sup>12</sup>.** But if organizations map their DX strategy to the outcomes they're striving to achieve, by focusing on the people and processes that will get them there, the technologies they choose to implement will get them much farther along in their journey.

**Why** Why is digital transformation important to the organization? What are the objectives and desired outcomes of your DX journey?

**Where** Where will DX take you? How far along in the journey are you and how much further do you have to go? Which obstacles stand in the way?

**Who** Who will be impacted by Digital Transformation? What is their experience today (CX and EX) and what should, or could it be? Who will lead digital transformation? Which executives, line of business leaders, and technologists will drive DX across the organization?

**How** How will you achieve DX? What are the processes that need to be prioritized and how can they be improved?

**What** Finally, what vehicle, or technology, is best suited for the road ahead, considering all the obstacles along the way?  
(Hint: Look for a cloud-based, no-code, API-first automation solution that provides the required business process coverage.)

<sup>12</sup>Source: <https://www.bcg.com/publications/2020/increasing-odds-of-success-in-digital-transformation>



# Summary

# Field Notes for the Journey

01

Digital transformation is no longer just about technology or disruption. DX is a mindset, a lens through which leadership must examine the various people, processes, and technologies at work across the entire organization to create connected, data-driven experiences for customers and employees, alike.

02

Technical and nontechnical leaders and users across the organization **MUST** champion digital transformation initiatives to meet company goals. Buy-in and collaboration are key.

03

People before process. Leaders need to consider both customer experience (CX) and employee experience (EX) when evaluating digital transformation priorities and potential solutions.

04

Process before technology. Decisionmakers and stakeholders must work together to develop extensive business process knowledge to understand the necessary business process coverage and key capabilities required of DX solutions.

05

Best-in-breed solutions are multi-hyphenate, literally. Look for a cloud-based, no-code, API-first, AI-powered automation platform that automates and augments a breadth (and depth) of business processes.

By empowering employees, supporting customers, streamlining processes, and turning trapped information into insights and outcomes, digital transformation holds the power to revolutionize not only the workplace, but the world.

